

Alaska Crop Improvement Association

SEED
CERTIFICATION
HAND BOOK



Prepared in cooperation with
The Alaska Agricultural Experiment Station
and
The University of Alaska Extension Service

ALASKA CROP IMPROVEMENT ASSOCIATION

SEED
CERTIFICATION
HANDBOOK

Agricultural Extension Service, University of Alaska, College, Alaska.
Allan H. Mick, Director, in cooperation with the United States Department of Agriculture. Published in furtherance of the Acts of May 8 and June 30, 1914.

Revised May, 1956

OFFICERS

Alaska Crop Improvement Association

Matanuska Valley District:

*President -- Harold Dinkel, Wasilla
Vice-president -- Ted Knutson, Wasilla

Term of Office

July 1, 1956--June 30, 1959
July 1, 1956--June 30, 1959

Fairbanks District:

*President -- L. M. Canaday, Fairbanks
Vice-president -- Bert Stimple, Fairbanks

July 1, 1955--June 30, 1957
July 1, 1955--June 30, 1957

Kenai Peninsula District:

*President -- Cecil M. Wyant, Homer
Vice-president -- Yule F. Kilcher, Homer

July 1, 1955--June 30, 1958
July 1, 1955--June 30, 1958

Executive Secretary:

Charles E. Logsdon, Palmer (Sec Art. V, Sec. 7 of the Constitution)

* The president of each district is a member of the Board of Directors

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This bulletin brings together information on certified seed production in Alaska. It is hoped that it will acquaint Alaskans with the aims of a certified seed program and the work of the Alaska Crop Improvement Association in accomplishing those aims. It is a reference to the current rules for the production of certified seed and is issued in loose-leaf form to facilitate revision as changes occur.

Procedure for Certifying Seed

1. Write to the Secretary, Alaska Crop Improvement Association - Box E, Palmer, indicating your desire to become a member (page 17). If accepted, pay \$3.00 a year or \$5.00 for three years.
2. Read the certification regulations for the crop you are interested in (cereals - page 28, potatoes - 33).
3. Plant eligible seed (pages 24, 25, 26, 33).
4. Make formal application for inspection (forms are available from the Secretary).
5. Rogue out diseased and off-type plants from fields.
6. Fields will be inspected by a Crop Improvement Association representative.
7. Do a good potato grading job (page 37) and clean your cereals (pages 29 and 30).
8. Bin inspections of potatoes are made and cereal seed samples are checked in the laboratory. If seed is eligible for certification, request tags and seals from Secretary and send check or money order (Pages 28 and 34)

THE PURPOSE OF SEED CERTIFICATION *

The purpose of seed certification is to maintain and make available to the public, high quality seeds and propagating materials of superior crop plant varieties -----.

Varietal purity is the first consideration in seed certification but other factors such as weed and disease control, high viability, cleaning, and grading are also important in the seed certification program. One of the most effective methods of preventing the wider distribution of weeds is by planting crop seed containing fewer weed seed. Seed-borne diseases that may prevent the proper development of the plant during germination, vegetative growth, or seed formation periods, are frequently distributed by seed.

Seed certification is designed, therefore, to maintain not only the genetic purity of superior crop varieties, but also reasonable standards of seed condition.

* from Publication #17 of the International Crop Improvement Association.

LEGAL AUTHORITY FOR SEED CERTIFICATION
IN ALASKA

Seed certification in Alaska is the duty and responsibility of the Commissioner of Agriculture under authority of Alaska Territorial Statutes 33-1-2 (1949 Compiled Laws of Alaska). Seed certification is carried out by the Alaska Crop Improvement Association (formerly known as the Alaska Certified Seed Growers Association) under the terms of the following letter of understanding with the Commissioner of Agriculture:

To whom it may concern:

In as much as the Commissioner of Agriculture for Alaska has the authority to control the movement of seeds and other plant propagative parts into and within the Territory of Alaska; and

In as much as the objectives of the Alaska Crop Improvement Association include the production of high quality seed and other plant propagative parts through a system of inspections; and

In as much as the Commissioner of Agriculture is in accord with the rules and regulations governing the production of such seed; and

In as much as both the Commissioner of Agriculture and the Alaska Crop Improvement Association are agreed that high quality seed is necessary for the advancement of agriculture in Alaska; then

The following is an understanding reached and agreed upon by the Commissioner of Agriculture and the Board of Directors of the Alaska Crop Improvement Association at the meeting of the Board of Directors

Revised May, 1956

of the Association December 1, 1955. This agreement shall become effective immediately and remain in effect until revised or cancelled by either party at the beginning of any calendar year with the provision that seed lots produced under the regulations of the previous year and meeting the requirements would be considered as meeting the requirements for planting in that year.

1. The Alaska Crop Improvement Association shall maintain an inspection service for the purpose of determining the eligibility of seed lots for certification in accordance with the rules and regulations of that organization.

2. The Alaska Crop Improvement Association is authorized to issue certificates to those growers whose seed lots are found to be eligible for certification.

3. The Alaska Crop Improvement Association shall submit to the Commissioner of Agriculture a list of growers whose seed lots have been found eligible for certification.

4. The Commissioner of Agriculture agrees to accept as grade standards for certified seed those set forth in the rules and regulations of the Alaska Crop Improvement Association.

5. Certification fees collected from Association members shall be retained by the Association.

6. Grade inspection service of the Alaska Department of Agriculture will be available to shippers of certified seed.

7. Samples of all seed lots other than potatoes shall be submitted to the Commissioner of Agriculture for purity and germination tests.

ALASKA CROP IMPROVEMENT ASSOCIATION
CONSTITUTION

Article I. Name

Section 1.

This organization shall be known as the Alaska Crop Improvement Association and may be hereafter referred to as the Association.

Article II. Objects

Section 1.

The objects of this Association shall be to advance the interests of agriculture in Alaska by:

- a. Cooperating with the Alaska Experiment Station, the Extension Service, the University of Alaska, the Alaska Territorial Department of Agriculture, and other agricultural agencies in the campaign for more general use of standard and adapted varieties of crops.
- b. The production of pure seed stocks under a system of rigid field and bin inspections and seed registration or certification of pedigreed or improved varieties.
- c. Informing the public of the advantages of using certified seed through publication, through the support and fostering of local, territorial, and national shows where pure seed stocks are exhibited, and through any other medium of information exchange.

Article III. Membership

Section 1.

Any person who is a resident of Alaska and who is actively engaged in agricultural pursuits may become an active member of the Alaska Crop Improvement Association.

Section 2.

Any person who is a resident of Alaska may become an associate member of the Alaska Crop Improvement Association.

Section 3.

Employees of the Alaska Agricultural Experiment Stations, Agricultural Department of the University of Alaska, the Soil Conservation Service, the Extension Service, the Alaska Territorial Department of Agriculture and agricultural students of the University of Alaska may become associate members without payment of membership dues.

Section 4.

Honorary membership may be conferred upon anyone who has gained particular prominence through his activity in the advancement of the pure seed stocks program.

Section 5.

Only active members shall be eligible to vote or be elected to hold office.

Article IV. Districts

Section 1.

For the purposes of administration, to assure adequate representation of the membership, and to cope with problems of a local nature, the Association shall be divided into districts. These shall consist of the Fairbanks district, the Matanuska Valley district and the Kenai Peninsula district.

Section 2.

These districts may be further subdivided or consolidated, or new districts may be added by petition to the Board of Directors signed by a majority of the membership of the district or districts concerned for such consolidation or sub-division. A change may then result if approved by the Board of Directors.

Article V. Officers

Section 1.

Each district shall elect every three years a President and a Vice-president.

Section 2.

The term of office for each district President and Vice-president shall be three years.

Section 3.

The district President and Vice-president shall take office on the first of the fiscal year following their election.

Section 4.

The President of each district shall represent his district as a member of the Board of Directors of the Association. The Vice-president shall be the alternate representative to the Board of Directors from his district with power to vote on the Board of Directors in the absence of the President of his district.

Section 5.

If neither President nor Vice-president of a district is able to attend meetings of the Board of Directors, the district President may appoint in writing a substitute from his district as representative of that district. Said substitute representative is not eligible to hold office as President or Vice-president of the Board of Directors.

Section 6.

The President of the Board of Directors shall be the one who is serving in the last year of his present term. The Vice-president shall be the one who is serving in the next to last year of his present term.

Section 7.

The Secretary shall be appointed from the staff of the Agricultural Extension Service by the Director of the Agricultural Extension Service, subject to the approval of the other members of the Board of Directors. The Secretary shall be a member of the Board of Directors with power to vote.

Article VI. Duties of District Officers

Section 1.

It shall be the duty of each district President to preside at all district meetings of the Association and to perform such other duties as usually pertain to the office.

Section 2.

The district President shall call at least one annual meeting of the Association members in his district at such time and place as will assure best attendance of the membership, and may call other meetings as necessary for the conduct of Association business in his district. In the absence of the Secretary of the Association at such meetings, the district President shall appoint one of the members to record the minutes of the meeting.

Section 3.

In the absence of the district President it shall be the duty of the Vice-president to preside and perform the duties of the President.

Article VII. Duties of Officers of the Board of Directors

Section 1.

It shall be the duty of the President of the Board of Directors to preside at all meetings of the Board of Directors, to enforce the observance of the rules and regulations of the organization and to perform such other duties as usually pertain to the office.

Section 2.

The President of the Board of Directors shall call the Directors together at least once a year and at any other time when it is necessary.

Section 3.

In the absence of the President of the Board of Directors, it shall be the duty of the Vice-president to preside at meetings of the Board of Directors and perform the duties of the President.

Section 4.

It shall be the duty of the Secretary to keep all records of the Association, collect dues and fees, issue receipts, handle all correspondence pertaining to Association business, pay all bills of the Association, and have general supervision of the inspection service. He shall act as Secretary at district meetings and provide a copy of the minutes to the District President following the meeting.

Section 5.

The Secretary shall be properly bonded, the amount of such bond to be determined by the Board of Directors and the cost of same to be borne by the Association.

Article VIII. Duties and Powers of the Board of Directors

Section 1.

It shall be the duty of the Board of Directors to:

- a. Direct all operations of the Association
- b. Define the scope of the Association activities

- c. Investigate complaints, recommend adjustments, and punish members for violations as outlined in Article III of the By-laws.
- d. Consider recommendations that may be made by any person in respect to affairs of this Association.
- e. Define the course to be followed in issuing certificates to members.
- f. Define the course to be followed in keeping production records of its members.
- g. Define the course to be followed in issuing catalogs of seed of approved varieties produced by members.
- h. Present annually to the Commissioner of Agriculture for the Territory of Alaska a list of recommendations for alterations or additions to existing or proposed territorial regulations which might affect the production, sale, use, or promotion of certified seed, or which might affect the functions of the Alaska Crop Improvement Association.

Section 2.

The Board of Directors shall have the power to:

- a. Arrange contracts and cooperative agreements with proper officials of the Alaska Experiment Station, the Territorial Department of Agriculture, the Agricultural Department of the University of Alaska, the Soil Conservation Service, the University of Alaska Extension Service and any Alaskan community association which shall be of mutual benefit to members of the Association and to the agriculture of Alaska.

- b. Consider and render final decisions for the Association on any appeals that may be made for certification of seed.
- c. Take such action as may at any time seem to them advisable in carrying on the work of the Association and in encouraging the production and use of improved seed stocks.

Article IX. Elections

Section 1.

The three Districts shall elect officers during the fiscal year 1954-55 to take office July 1, 1955. The officers elected in the Matanuska District at this time shall serve one year, those elected in the Fairbanks District at this time will serve two years, and those elected in the Kenai District will serve three years. Officers of all Districts elected in subsequent elections shall serve as stated in Section 2 of Article V.

Section 2.

Any Districts arising as a result of consolidation or subdivision of existing Districts or new Districts shall elect officers in such years as shall be determined by the Board of Directors.

Section 3.

Voting shall be by mail ballot except as noted. The Secretary shall mail to all active members of a District in which an election of officers is to be held a questionnaire as to whether he will consent to serve as District Officer if elected, on or before the first day of January. The questionnaire shall be returned to the Secretary before January 20. Ballots carrying the names of those willing

to serve shall be sent to each active member of the district on or before February 15. Returned ballots postmarked later than March 5 shall be considered invalid. The Secretary shall open and count the ballots on or before April 1 in the presence of a notary public and an affidavit of the results filed in the records of the Association. Any ballots received after counting date shall be discarded. The candidate receiving the highest number of votes shall be declared President of his district. The candidate receiving the second highest number of votes shall be declared Vice-president. All ties for either office of President or Vice-president shall be resolved by voice vote at the first district meeting following the election.

Section 4.

The expense of notary public fees incurred through election procedures shall be borne by the Association.

Section 5.

All ballots shall be retained in the files of the Association for one year following the date on which they are counted.

Article X. Meetings

Section 1.

The annual meeting of the Board of Directors shall be held at Palmer December 1. Notice of time and place of meeting shall be sent by the Secretary to each Director at least three weeks prior to holding of the meeting.

Section 2.

Special meetings of the Board of Directors shall be held at the call of the President or on the written request of two or more of the Directors. Notice of time, purpose and place of meetings shall be sent by the Secretary to each Director at least three weeks prior to holding of the meeting.

Section 3.

The annual District meetings shall be held at any time during the fiscal year as indicated in Section 2 of Article VI. Notice of time and place of District meetings shall be sent to the members in the District at least two weeks prior to holding of the meeting.

Section 4.

Special meetings of a District may be called by the District President at his own discretion or at the request of at least two members of the Board of Directors, or at the written request to the District President of a majority of the Association members within the District who shall state in writing the purpose of the proposed meeting.

Article XI. Constitutional Amendments

Section 1.

Proposed amendments shall be prepared in writing and submitted to the Board of Directors for their consideration. If the Board of Directors consider the amendment necessary, they shall instruct the Secretary to inform immediately the membership by mail of the proposed amendment and to prepare a form on which each member may

express himself either for or against the adoption of the amendment. These ballots shall be returned within sixty days from the date they are mailed by the Secretary. Each ballot will carry the date of deadline for return. The ballots shall be opened and counted by the Secretary within fifteen days after the deadline for the return of the ballots in the presence of a notary public and an affidavit of the results filed in the records of the Association. The constitution shall be considered amended providing at least two thirds of these ballots favor the amendment. If the Board of Directors do not consider the proposed amendment favorably, they shall notify the person or persons submitting the proposal of their decision.

Section 2.

Any proposed amendment to the constitution may be submitted to the Board of Directors with a written petition signed by at least two thirds of the membership of a district for referral of the amendment to the membership of the whole Association. The Board of Directors shall withhold judgment on the amendment and immediately instruct the Secretary to obtain the opinion of the whole membership by the method as outlined in Section 1 of Article XI. The members of the Board of Directors shall vote as individual members of their respective districts.

BY-LAWS

Article I. Fiscal Year

Section 1.

The Association shall operate on a fiscal year extending from July 1 to June 30.

Article II. Quorum

Section 1.

Three Directors or their representatives shall constitute a quorum for a meeting of the Board of Directors.

Article III. Dues and Fees

Section 1.

The annual dues for active and associate members shall be three dollars per year or five dollars for three years due July 1.

Section 2.

Failure of a member to pay his membership dues by the first of September of the year in which they become due shall be considered as notice of termination of said membership. Such withdrawal will not affect any right or lien which the Association may hold against the retiring member. Nor will such withdrawal affect the right of the Association to investigate and act concerning complaints held against the retiring member for violation of regulations.

Section 3.

Inspection, sealing, tagging and similar fees shall be fixed by

the Board of Directors at the annual meeting, and notice of such schedule of fees sent to the Commissioner of Agriculture.

Article IV. Penalties

Section 1.

On proof of use of fraudulent or other undesirable methods in handling, sale or exhibiting seed stocks, a member may be suspended or expelled without recourse, by a two thirds vote of the Board of Directors. Notice of such suspension or expulsion shall be mailed to all members of the Association.

Article V. Rules for Certification

Section 1.

Rules for seed certification shall be considered and modified by the Board of Directors.

Section 2.

Only active members are eligible to have seed certified by the Association.

Article VI. Order of Business

Section 1.

The order of business at the annual meeting of the Board of Directors shall be as follows:

1. Reading of minutes
2. Reading of communications
3. Report of Secretary
4. Unfinished business
5. New business

Article VII. Rules of Order

Section 1.

Roberts' Rules of Order shall govern at all meetings of the Association.

Article VIII. Amendments

Section 1.

The By-laws may be amended by a two thirds vote of the Board of Directors.

Article IX. Vacancies

Section 1.

When an office vacancy occurs in the Board of Directors due to resignation, death or for other reasons, the vacancy shall be filled from progressive officers of the district represented. Such designation shall hold until the next election of that district.

Article X. Seal

Section 1.

The seal of the Association shall be in the form of a circle with the words "Alaska Crop Improvement Association" surrounding a smaller central field. The smaller field shall contain figures representing forage crops, cereals, and potatoes against a background of Mt. McKinley, and with the words "Adaptability, Purity, Quality".

EVALUATION OF CROP VARIETIES

The Alaska Agricultural Experiment Station is responsible for determining the superiority of all crop varieties recommended for growing in Alaska. Varietal superiority is determined by extensive experimentation over a period of years under controlled conditions in the area where the crop varieties are to be ultimately recommended for growing. Thus, any agency or individual interested in having a new crop or variety recommended and certified by the Alaska Crop Improvement Association for growing in Alaska makes such a proposal to the Alaska Experiment Station at Palmer. No new crop variety is recommended or certified until claims as to its superiority are verified by controlled experiments at the Station. Except under emergency conditions, a variety must have been in experimental plots for at least three years to be eligible for recommendation. The basis of recommendation is satisfactory performance in competitive trials with standard varieties. Varieties developed outside of Alaska are given the same careful trials as those developed in the Territory.

When Alaska Crop Improvement Association accepts the responsibility of certifying seed stock of a given variety, recommended by the Alaska Agricultural Experiment Station, it becomes a STANDARD VARIETY.

INCREASE AND DISTRIBUTION OF NEW VARIETIES OF SMALL GRAINS

The following procedure for the release of new cereal varieties was decided upon by the Alaska Agricultural Experiment Station and the Alaska Crop Improvement Association at the meeting of the Board of Directors of the Association December 1, 1953. It was determined that Gasser wheat be released by this method and if the method was satisfactory, it would establish a pattern for the future. This procedure is:

"The total seed will be apportioned approximately equally between the Matanuska and the Tanana Valleys. The members in the two areas will be canvassed prior to the release of the seed to determine which ones are willing to accept the seed for certification planting. These growers will be given sufficient seed to plant from one to two acres. If there are more growers who wanted the seed than there is seed available, only enough growers will be chosen so that no one will receive less than 100 lbs. Application shall be made for certification and if the fields are found eligible for certification, the grower may retain as much as 50 percent of the yield. He shall not sell more than 25 percent to any other one grower. If it is not eligible for certification, the grower shall not sell it for seed purposes. Active members of the Alaska Crop Improvement Association shall have the first chance to purchase this increase, but they must have their orders in before March 1, 1956. After March 1, 1956

the seed shall be made available to the general public at the same price as to members. The price shall be no less than the market price for seed grain at that time. After May 1, 1956 it may be sold at a lower price providing it is not sold with certification tags on it. After the first years increase and distribution, it may be handled in any way the public likes, except that any grown for certification purposes must conform to the regulations governing the production of certified seed."

INCREASE AND DISTRIBUTION OF NEW POTATO VARIETIES

From time to time the Alaska Agricultural Experiment Station will have new potato varieties for release to growers in Alaska. The policy of the Experiment Station is to release such varieties to the Alaska Crop Improvement Association for increase and distribution to the general public. The following is a procedure for release as decided upon by representatives of the Experiment Station and the Board of Directors of the Association December 1, 1953:

"A member of the Experiment Station staff and the Board of Directors of the Association will choose two member growers in each of the three districts (Tanana Valley, Matanuska Valley, and the Kenai Peninsula) to be test growers. Each of these growers will receive 30 lbs. of each variety released. They will plant them as tuber units and the plants will be inspected by a representative of the Alaska Crop Improvement Association during the growing season. These potatoes will not be certified during the first season, nor will any fees be charged for their inspection. At the end of the season each grower will notify the Secretary of the Association or the Experiment Station as to whether he considers the variety worth while growing any more. If the grower decides it is not worth while, he shall dispose of them in any way he sees fit except that they must not be used for seed purposes. If he decides it is worth while, he must replant them as tuber units the following year, apply for certification on them and pay the certification fees. The

potatoes will be inspected the second year under the regular certification system and if they are found eligible for certification, the grower may retain as much as 50 percent of the yield and sell the rest as certified or foundation seed, whichever tolerances they reach. The grower may sell no more than 25 percent of the yield to any one grower. When a variety reaches the stage where it is ready for sale, the active members of the Association shall be notified and given first chance to obtain it. They must have their order in by March 1. After March 1, the potatoes shall be made available to the public at the same price at which they were offered to the members. After June 1, if any remain for sale, they may be sold at a lower price, but shall not be tagged as certified seed".

TYPES OF SMALL GRAIN SEED

Under Alaskan certification procedures, there are three types of small grain seed: foundation, registered and certified.

Foundation seed stocks are maintained by the Alaska Agricultural Experiment Station in such a manner as to most nearly insure genetic identity and purity. These seed stocks have descended from a selection or selections of recorded origin. Foundation seed is the source of all other certified seed classes, either directly or through registered seed.

Registered seed is the progeny of foundation or registered seed, handled to maintain satisfactory genetic identity and purity. Field and laboratory tolerances are not so rigid as for foundation seed but are more rigid than for certified seed.

Certified seed is the progeny of foundation, registered or certified seed that is handled to maintain genetic identity and purity consistent with the field and laboratory tolerances established for this grade of seed.

TYPES OF POTATO SEED

Under Alaskan certification procedure, there are two types of potato seed: foundation and certified.

A small amount of foundation seed of standard varieties is maintained by the Alaska Agricultural Experiment Station, but most foundation seed is produced by the growers themselves. Every effort is made to maintain genetic purity and freedom from seed-borne diseases. Although not required at present, it is advisable to plant foundation grade seed as tuber units. Foundation seed is the source of certified seed and is subject to more rigid tolerances than certified seed.

Certified seed is produced from foundation seed or certified seed and represents the bulk of the seed produced by members of the Alaska Crop Improvement Association. It is not subject to such rigid tolerances as foundation seed, but the tolerances are sufficiently rigid that commercial growers using such seed should have no worry about potato seed-borne diseases.

VARIETIES ELIGIBLE FOR CERTIFICATION BY THE ALASKA CROP IMPROVEMENT
ASSOCIATION

Oats	-	Golden Rain
Barley	-	Edda
Wheat	-	Gasser
Potatoes	-	Arctic Seedling
		Green Mountain
		White Bliss
		Kennebec
		Ontario
		Teton
		Knik
		114.3
		10-2
		6-1
		47-3

The Alaska Crop Improvement Association is a member organization of the International Crop Improvement Association and our General Certification Standards conform at least to their specified minimum standards.

SMALL GRAIN SEED CERTIFICATION STANDARDS

I. Applications:

Written applications for inspection and certification of any grade of seed must be in the hands of the Executive Secretary of the Alaska Crop Improvement Association before June 15. Application forms as requested will be furnished by the certifying agency. A separate application will be required for each variety or lot that is being entered.

II. Fees:

Membership fee - - - - \$3.00 per year or 3 years for \$5.00

Service fee on applications - - - - \$3.00

(If application is made on more than one crop, only one membership fee is required)

Inspection fee - - - - - \$3.00 flat rate up to 25 acres

(Over 25 acres, 10¢ per acre)

Tags - - - - - .04 per tag

Seals - - - - - .01 per seal

III. Land Requirements:

A crop of small grain will not be eligible for certification unless planted on land which has been handled in such a manner as to prevent volunteering of grain of the same species in the year in which certification is applied for. The only exception shall be the planting of grain on land on which a certified crop of the same variety was produced the previous year.

IV. Handling Crop Prior to Harvest:

Roguing to remove off-type plants, other varieties, other crops, wild oats and other weeds likely to be difficult to remove in harvesting or recleaning is required prior to or after inspection.

V. Field Inspection:

- a. A representative of the Alaska Crop Improvement Association shall make necessary inspections each year a certified seed crop is produced.
- b. The final inspection shall be made after the crop is fully headed when varietal crop mixtures and other factors can be determined.
- c. The inspector shall thoroughly examine the field so as to evaluate accurately the factors affecting its eligibility for certification.

VI. Field Standard

- a. Unit of certification - shall be one seed lot planted on one farm by one grower.
- b. Isolation requirements - all certified grains must be isolated from any other grain fields by at least one drill or seeder width which is either mowed, uncropped or planted to some crop other than grain; except that all rye fields shall be isolated by at least 40 rods from other rye fields.

VII. Harvesting and Seed Handling:

- a. Harvesting should be done with utmost precaution to avoid mixtures. The combine or thresher should be cleaned

thoroughly prior to threshing. As an added precaution, the first three to five sacks should be discarded, or all the seed from the first cut around the field.

b. Recleaning is usually necessary to remove weeds, inert matter, and small seeds. The cleaner and equipment (hoppers, spouting, bucket elevators, etc.) must be cleaned thoroughly to remove all seed from previous run. Cleaning should be supervised by a representative of the Alaska Crop Improvement Association unless done in an approved cleaning plant.

c. Certified seed must be packed in clean bags.

VIII. Seed Sampling and Inspections:

A representative composite seed sample of each lot of foundation registered or certified seed produced must be supplied to the Secretary of the Alaska Crop Improvement Association for laboratory analysis before an official tag can be issued for labeling and shipping. This should be done as soon as possible after harvesting and cleaning so the Secretary can be informed of the quantity and kind of seed available for distribution.

IX. Tags and Seals:

Each bag of seed sold as certified must bear the official seal and tag of the Alaska Crop Improvement Association and attached by an authorized representative of the Association.

Table 1. Small Grain Specific Field Requirements

Factor	Maximum permitted in each class of seed		
	Foundation	Registered	Certified
Other Varieties (%)*	None	0.2	0.5
Inseparable other crops (No. per acre)**	None	10.0	30.00
Noxious weeds whose seeds are inseparable***	None	None	None
Chemically controllable seed-borne diseases (heads per acre)	None	20.00	40.00

* Other varieties shall be considered to include plants that can be differentiated from the variety that is being inspected.

** Inseparable other crops shall include crop plants, the seed of which cannot be thoroughly removed by the usual methods of cleaning. Barley in oats and rye in winter wheat are good examples. This does not apply to winter grains and vice versa.

*** Noxious weeds are those listed in Quarantine Rules and Seed Regulations for the Territory of Alaska, issued by the Territorial Department of Agriculture, and those designated by the certifying agencies.

Table 2. Small Grain Seed Standards - Minimum Requirements

Class of Seed	Pure Seed (Minimum%)	Noxious weeds whose seeds are inseparable** (No. per lb.)	Other Varieties (Maximum No. per lb.)	Other Small grain crops (Max.No. per lb.)	Inert matter (Max. % per lb.)	Minimum germina- tions***
Foundation	****	None	None	None	****	****
Registered	97	None	1	2	3	80
Certified	97	None	10	5	3	80

* Laboratory purity indicates other crop seeds, weed seeds, and inert matter exclusive of broken seeds.

** Noxious weeds include all inseparable seeds which are designated as such in Quarantine Rules and Seed Regulations for the Territory of Alaska, or those designated by the certifying agency.

*** For the purpose of maintaining supplies of certified seed, special consideration will be given seeds having a poor appearance or germination when this has been caused by uncontrollable weather conditions.

**** No Standards are established

POTATO SEED CERTIFICATION STANDARDS

The general Seed Certification Standards as adopted by the Alaska Crop Improvement Association are basic and together with the following specific standards constitute the standards for certification of potatoes.

- I. Applications - Written application for inspection and certification of any grade of seed potatoes must be in the hands of the Secretary of the Alaska Crop Improvement Association before June 15th. Forms on which the grower shall indicate the variety, acreage, location and such other information will be furnished by the certifying agency. A separate application is required for each variety or lot of the same variety that is being entered.
- II. Eligibility - Seed entered for certified or foundation grade must show proof of:
 1. meeting grade for certified or foundation increase planting on basis of previous years records; or
 2. meeting the certified or foundation grade of any state or other certifying organization with standards equal to those set forth herein; or
 3. being produced under a supervised tuber unit system.
- III. Acceptance - The certifying agency is not bound to accept applications calling for inspections:
 1. in an area or community where the cost of such services is greater than warranted.

2. on farms where ring rot was known to occur during the previous year unless acceptable proof is shown that the necessary sanitary practices (including disinfection) have been fully met.

IV. Isolation - Potatoes eligible for certification must be 10 feet from any other non-certified potato fields.

V. Fees -

Membership fee - - - - - \$3.00

Service fee on application - - - 3.00

Field inspections:

Potatoes (up to 1 acre) - - - 2.00

Potatoes (over 1 acre) - - - 1.00 per additional acre

Bin inspection - - - - - 1.00

Tags - - - - - .03 per tag

Seals- - - - - .01 per seal

VI. Roguing - This is the process of removing from the field and destroying complete plants, including tubers and seed pieces, which are diseased, not true to variety, off-type, or otherwise unfit for seed production.

VII. Inspections -

1. Time: At least two field and one grading inspection shall be made; additional inspections shall be made at the discretion of the inspector. The first field inspection shall be made approximately two weeks before blooming and the second inspection approximately three weeks later.

The grading inspection shall be made at time of shipping, although the inspector may make bin inspections at any previous time and in any number deemed necessary.

2. Standards: The following disease percentages are the maximum which can be present at the time of inspection. Excesses will automatically cause disqualification for certification in either grade. The grower is expected to rogue prior to inspection with a degree of thoroughness keeping within these standards. However, evidence of roguing in excess of 5 per cent will automatically cause disqualification.

Field Inspections				
Item	Tolerances*			
	Foundation Seed		Certified Seed	
	1st inspection	2nd or later inspection	1st inspection	2nd or later inspection
	(%)	(%)	(%)	(%)
Spindle Tuber, Mosaic,)				
Leaf Roll or Other)	0.3	0.2	1.5	1.0
Virus Disease**)				
Total Virus Disease	0.5	0.3	2.0	1.5
Weak plants	1.0	None	5.0	2.0
Variety Mixtures	0.2	None	1.0	0.1
Bacterial Wilt/Ring Rot	None	None	None	None
Total of Above Factors	0.5	0.3	4.0	2.0

* It is suggested that no tolerance be allowed for the incidence of a serious disease (as agreed upon by competent authorities) which is not known to occur in Alaska. Fields may be rejected at the discretion of the inspector for excessive amounts of blackleg, late blight, Rhizoctonia or any other disease not specifically listed.

** "Other virus diseases" includes all forms of Mosaic, Calico, Witches' Broom, Haywire, and Giant Hill

Bin Inspections		
	Maximum Tolerances	
	Foundation	Certified
	seed	seed
	(%)	(%)
Bacterial Ring Rot	None	None
Late or Early Blight	None	1.0
Spindle Tuber	0.2	1.0
Stem End Discoloration	2.5	5.0

Late blight, early blight and frost shall be a cause for rejection only when present to such an extent that satisfactory field inspection for other diseases cannot be made.

Stem end discoloration is a grading factor. If the percentage found exceeds the tolerance, the lot will be rejected unless the percentage of stem end discoloration can be reduced to within the specified tolerance. A lot of tuber-unit potatoes containing stem end discoloration in excess of the tolerance may be put on probation which will permit such stock to be planted by the producer and entered for certification the following year.

At shipping time another inspection may be made by a qualified representative of the Alaska Crop Improvement Association. This inspection may be made before the potatoes are moved from the loading point.

VIII. Disqualifications - A field entered for certification in any grade may be disqualified for:

1. failure to pass standards as set up under "Inspections"
2. presence of ring rot either in the field or in the cellar
3. failure to adequately control weeds and insects which may
 - a. serve as hosts for viruses or insect vectors
 - b. interfere with an adequate inspection
 - c. indicate lack of care and good farming practices necessary for certified seed production
4. failure to pay fees in full and at times designated
5. failure to maintain 10 feet isolation between fields entered for certification and a commercial field of potatoes.
6. evidence of roguing in excess of five percent
7. storage under any condition where there is danger of admixture with uncertified stocks or contamination with disease
8. five percent or more of missing hills if due to disease
9. any condition or situation which, in the opinion of the inspector, is not compatible with the intents and purposes of producing high quality seed.

IX. Grade Standards - All seed potatoes sold as certified shall conform to the requirements for U. S. #1 with the following exceptions:

1. size shall be a minimum of 1 7/8 inches to a maximum of 12 ounces. Other sizes may be sold as certified seed if the buyer and seller mutually agree to it.
2. may have wireworm injury providing it isn't serious
3. shall not be seriously damaged by dirt
4. shall not be washed
5. shall not be clipped
6. discoloration of tubers by light, immaturity, or the characteristic checking that occurs under normal conditions shall not disqualify them
7. potatoes eligible for tagging as certified seed should not be stored, graded or handled in cellars, warehouses or subdivisions thereof in which potatoes that have been known to have bacterial ring rot have been stored
8. only new or clean bags may be used during planting, harvesting, storage and sale of certified seed.
9. shall have no bacterial ring rot

X. Tagging

1. The grower shall order from the Secretary of the Alaska Crop Improvement Association the tags and seals needed for his seed lot.
2. Tags - Tags issued for certified seed shall be serially numbered and show a lot number. The Alaska Crop Improvement Association name and seal will also appear on the tag along with the variety and kind and class of seed.

Tags not carrying the above listed information will be considered void.

Tag Color - Dark blue - Certified Number 1 seed

3. Penalties - Illegal use of tags will result in prosecution.